THE

LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNÂ."

SATURDAY, APRIL 11, 1885.

Original.

TUBERCULAR CEREBRAL MENINGITIS.

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Does there exist a physician who does not "stand in pause," overwhelmed with regret at his perfect powerlessness for good, when summoned to a case of tubercular meningitis? It is true a few cases of recovery from this "fell destroyer" have been reported, a part of which, to say the least, are surrounded by grave doubts as to their having been accurately diagnosed.

Occurring in those of a tuberculous or scrofulous diathesis—in adults rarely, in children frequently—representatives of childhood almost invariably marked and known for their mental brilliancy and precocity, as a consequence attaching themselves to all who come in contact with them—the old as well as the young—making their deaths more impressive and affecting than those resulting from most any other affection; then, again, the suddenness in some instances of their deaths—to-day bright, buoyant, and healthful to all outward appearances, to-morrow engaged in an almost certainly deadly conflict with an incurable, and, at times, a disease which you are unable to rob of one of its terrible features.

The want of similarity of appearance of its local affects to the eye of the observer, upon making autopsies of these cases, forces us to the conclusion that the tuberculous stamp makes some impress and results, in systems constitutionally marked by the scrofulous or tuberculous diathesis, inappreciable to the naked eye or upon the field of the microscope, yet "a seal set," known by its *effects*, but not by its mode of behavior in its relation of *cause*.

How frequently do we observe patients, who have years since been subjects of constitutional syphilis, now, it may be, no very positive effects remaining in their systems, yet let them be attacked by some form of fever, typhoid or other, they do not respond to the various medicinal agents as those who have never been impressed thus do, but without assignable reason sink beyond recall, sometimes during the very inception of such a fever, their *vis vitæ* seeming to have been sapped, or readily yielding to the attack of any grave disorder. Peculiarly impressive are all these cases, and especially so, as before intimated, on account of their incurability, the pathological change being a deposit of gray granulations or what are usually termed "miliary tubercles," rarely upon the free surface of the arachnoid, but most frequently in the meshes of the pia mater, in the form of small oval or ovoid and flattened bodies of sizes ranging from two fifths to four fifths of a line, at times so minute as to escape other than the most careful search, in *number* ranging from two to three to a thick scattering over the greater extent of the last mentioned envelope of the brain. Their point of election, so to speak (being there most commonly found), is the base of the brain, particularly about the "optic chiasm" and the fissures of Sylvius. In the field of the microscope they are observed to be composed of a goodly number of oval cells with a single nucleus, and occasionally some larger cells will be seen with small nuclei scattered among the smaller cells. These granulations have been observed by some pathologists enveloping or surrounding small arterioles, which, by the act of accretion, diminish and finally entirely obstruct the blood circulation through them. The presence of these tubercles very soon (the time required varying in different cases) provokes an inflammatory action in the shape of a meningitis, with its train of symptoms following fast upon its heels, exudation of serum, which exudate may en-

tirely envelop and conceal the tubercles from view. Following these changes in the pia mater, we have effusion within the ventricles. This, as a starting point, soon involves the true brain tissue, producing a breaking down or disintegration of its substance and irrevocable destruction. We are all aware, as this destructive process is taking place in the brain substance, that the deposit of and sequent disintegrating changes may and often are at the same time occurring in other parts of the body, such as in the lungs, mesenteric glands, bronchial glands, pleura, and peritoneum.

All these transitions may be insidiously transpiring, and no further evidence of the fact display itself than that the child is a little below par physically; it indeed can not be pronounced sick, or in perfect health, but this is all. It may be it has had one or more attacks of indigestion, or apparently a slight malarial manifestation, which to all appearances yields to ordinary antiperiodic treatment.

Let me here remark, you will find all authorities painting for you, with delicately-handled pencil, a picture complete and clearly marked in all of its tracings—in a word, a typical case of this disease—the outlines of which, as well as the lights and shadows, are brought boldly and satisfactorily into view; so plain, indeed, that "he who runs may read." But, alas! how different this picture from the one observed at the bedside. So true is this that the most painstaking and experienced investigator will frequently find himself "at sea." Such luminaries as Barthez and Rilliet, Barrier, Hayem, Bastian, Cornil, Valliex, Gerhard, Trousseau, Whytt, Rufz, Guersant, and many others, acknowledge it to be an impossibility to diagnose unerringly tubercular meningitis from the non-tubercular or simple form; the autopsy in some instances even throwing no light upon the subject; for, says M. Valliex, "M. Rufz, after determining at the autopsy that a case which he had witnessed was one of simple meningitis, asserted that it would have been impossible to distinguish it from the tubercular disease during life."

The local pathological condition of this affection can be stated in a few words: The disease is characterized by violent cerebral symptoms, dependent upon the existence of tubercular granulations in the pia mater as the essential anatomical lesion, accompanied in the great majority of cases by coincident inflammation of that membrane, by softening of the central parts of the brain, by effusion of serum into the ventricles, and in many instances by tubercular deposits in other organs.

My old teacher, Da Costa, of Philadelphia, asks this question in his work on Medical Diagnosis: "Can we distinguish this formidable complaint from ordinary meningitis?" and answers it as follows: "Seldom from meningitis of the base; generally from meningitis of the convexities." Now, our individual experience warrants our indorsing this expression thus far: It is possible in a typical case, being cognizant of the family history of your patient, as well as his individual history; but the difficulty lies in two directions: First, the insidious manner of its development in many cases; and secondly, you will not be able, in a large number of instances, to elicit the information as to the family history. Among the better class of patients, socially, this may be and frequently is withheld, from a species of false pride, or a determination not to believe a tendency to tuberculous disease exists in their families. Among the more ignorant classes they bother themselves very little with such minor subjects.

Tubercular meningitis usually occurs in an unhealthy subject, who may suffer from tuberculous deposits in any of the other internal organs, or it may be distinguished by its insidious approach, by the mild form of delirium, as also by the appearance of convulsive movements, not early in the history of the case, *but late* (the cephalalgia less violent, the febrile increase being less marked); by the palpable remissions in the cerebral signs, by the chest symptoms, and the chronic duration of the disease. But suppose—and you do meet with such examples—we have no delirium, no convulsive seizures during the first and second stages, and in the third stage not marked in character, with only slight subsultus or twitchings? The disease under consideration, you will recall, is closely simulated by not only *simple meningitis*, but by the acute hydrocephalous and hydrocephaloid disease of Marshall Hall, among the diseases of the brain; also by typhoid fever (and for this fever or a typhoid condition it is frequently mistaken), remittent fever, and the inflammatory affections of the lungs, which last-mentioned in children are so frequently associated with delirium and other manifestations of a deranged nervous system.

The period of invasion may be of long or short duration; if the former your diagnosis

is not so difficult, but if the latter its diagnosis may and often does baffle the skill of the profoundest and most experienced of diagnosticians.

The case may begin with symptoms of an attack of indigestion with slight irritability of the stomach and diarrhea and occasional vomiting, which symptoms may disappear under simple and appropriate treatment, the child manifesting its accustomed degree of intellectuality, possibly a little fretful and peevish, as you would justly expect under recovery from such an indisposition.

A slight concomitant fever is usually present, the thermometer registering 99° to 101° F. Your mental prognosis being, perhaps after this we may have a slight malarial expression which we can easily combat with some preparation of bark, and we shall have no further trouble. In this you are doomed to disappointment. The symptoms of indigestion have vanished, but the child's temperature remains above normal, only you possibly may note both morning and evening exacerbations not sufficiently great as to indicate the effects of malarial or typhoid fever. This continues for a few days, the patient sleeping pretty well, its appetite being small and capricious; no difficulty in arousing it from its slumbers for purposes of nourishment or attending to voiding its bladder or bowels; indeed, the patient will express a desire to attend to these calls. You determine you will be conservative in your treatment, and only keep the functions of the skin, kidneys, and bladder duly active. It can not be typhoid fever, you reason, as none of the organs, upon the most carefully conducted investigation, yield any abnormal condition, and there is no continuous evening increase of the temperature; it may be that the heart shows less strength, but that is all. No great degree of headache is complained of. Then, what is this extremely insidious affection? say you.

If the subject be an unhealthy one, the delirium of mild form, the appearance of convulsions occurring late in the history of the attack, the presence of the less acute degree of cephalalgia, as also the remissions in some of the cerebral signs, etc., there can be no difficulty in your safe arrival at a diagnosis. But suppose, as we have witnessed, we have no delirium, no convulsive seizures during the first and second stages, and in the third stage even these not marked in character.

Watson remarks, in his Practice, there are three ways in which this disease may make its attacks: first, it may come on *gradually*, and this is the most frequent; second, there are no premonitory symptoms, or they occur for a very short time before the disease sets in suddenly and violently with acute pain in the head and high fever; third, the mode in which it makes its advances is very insidious; the head symptoms supervene upon the subsidence of some other malady during the decline of scarlet fever, smallpox, whooping-cough, or any inflammatory or febrile complaint, or even after painful dentition or upon the disappearance of an eruption from the scalp. Dr. Abercrombie holds the softening of the brain tissue to be a result of inflammation, and that this inflammation of these central *white parts* constitutes the essence of the disease, and a fatal result may occur without any effusion of serum or serous matter, indeed, without any other morbid appearance.

There remains no doubt in the mind of any medical gentleman, we suppose, that the "*fons et origo mali*" of this disease lies in the scrofulous or tuberculous diathesis. The constitutional tendency undoubtedly is hereditary, and children born with this tendency are not only liable to, but most probably will have strumous disease lighted up in many organs at once, or in quick succession. Now the causes of bringing into active expression this latent condition are manifold: improper or insufficient diet, subjection to sudden transitions in temperature, vitiated air, or improper or scanty clothing, or a general irritation of any nature, may provoke an exhibition of this affection; for example, a sudden suppression of a "tinea capitas," or a chronic sore or sores behind the ears; their rapid or hurried cure is therefore unadvisable. The prognosis in these cases is always doubtful; but should your patient be a healthy subject, the affection developing rapidly and violently, a shade of hope may be entertained, because it may not prove *tubercular*, but simple meningitis. It has been our misfortune never to have witnessed a recovery from the tubercular form of this trouble. A great difference in experience, however, obtains upon this point. Dr. Odier, of Geneva, holds one third of these cases recover; Dr. Gölis, of Vienna states five out of thirty-seven got well in his practice; Dr. Brechatau lost four out of eleven cases; that is, adding together these and those recorded by Dr. Mills, we have nineteen recoveries out of seventy-six, or one in four.

Whytt, one of the pioneer writers upon this subject, divides the affection into three stages, taking the state of the pulse as his guide: his first stage was that in which the pulse was frequent; second, in which it was both slow and irregular, and his third stage was that in which it again becomes both rapid and feeble.

Gooch, on the other hand, divides it into four stages, being governed by the supposed condition of the brain. He termed his first stage the *stage of turgescence*; second, the period of inflammation; third, the period of effusion, and fourth, that of palsy.

Cheyne, guided by the *nervous manifestations*, names the first stage that of *increased sensibility;* the second stage that of *diminished sensibility*, and the third stage that of *palsy and convulsions*. So frequent are the variations both as to the circulation and nervous manifestations in these cases that no classification which will prove constant can safely be made.

Hammond divides it into four stages: first, *the prodromatic stage*, says he (in some instances this is never observable or present, or, to say the least, so indistinctly expressed as to be overlooked), generally it is sufficiently plain. The patient being sufficiently advanced in years, you will observe a radical change takes place in his disposition. He is irritable, fretful, and peevish, losing his accustomed interest in his plays or other means of diversion; anorexia, and consequent emaciation, the latter symptom more observable about the trunk and inferior extremities. Constipation is the rule, diarrhea the exception. Headache in this first stage is not often complained of, or the symptom of vomiting. Fever is not continuous, but as a rule is present at irregular times. This stage may continue but a few days, possibly for two or three months. Second, *the stage of excitement* generally begins with the symptom of constant vomiting, whether food be taken or not; attending this emesis the patient will complain of extreme pain in the head, the child's mode of expressing it will be by putting its hands to its head and crying, or awaking from its sleep screaming. Convulsions may now occur, in character closely resembling epileptic convulsions. The febrile state of this stage is more continuous than it is in the first stage, though it may still be irregular. A singular feature of the pulse is, it is both *soft* and *compressible*, thus differing from the *hard* and *resisting* pulse of other fevers. Up to this time the *intellectual* faculties are not very greatly affected, though the changes of both the character and disposition of the patient are very noticeable. The tongue is generally coated, its edges being red, and the bowels being constipated. Though physically your patient is weak, this weakness is not so great as to force him to keep his bed. Bodily temperature is above normal, thermometer registering in axilla 100° to 103° F. There may be appreciable remissions in the violence of all these symptoms. The development from the second into the third stage may be expressed by a remarkable and deceptive amelioration of all of the symptoms, which may continue several days and may mislead the superficial or ignorant observer.

In the third, or *stage of depression*, the pulse, which was formerly at times as high as 140 and at other times as low as 80 per minute, now becomes less rapid, and may fall to 50, its stroke being quick. An interval between the heart's contractions is sometimes so prolonged as to make you fear it may not beat again; it is also an irregular pulse, and in proportion to its irregularity will be the unfavorableness of your prognosis.

The temperature in this stage is *below* normal, and in infants continues so until the inception of the last or fourth stage. As a consequence of the excitement and attendant wakefulness of the preceding stage, the patient sleeps now most of the time, which tendency to somnolency alternates with, most frequently, rather *quiet* delirium; he takes no notice of what may be transpiring around him, though at times he may, when loudly spoken to, turn his eyes toward or upon the speaker; his fingers are continually in motion, picking at real or imaginary objects. Convulsive movements, limited to a set or sets of muscles, or *general* in their character, occur during this stage, and may be continuous. The muscles of the eyes rarely escape, expressed either in strabismus, convulsive movements of the pupils, or continuous movements of the eyeballs; the muscles of the face frequently suffer, more especially toward the end of this stage. When awake there is a continuance of the headache, causing the familiar "hydrocephalic cry"—a cry peculiar in its not being indicative of *pure* physical agony, but combined with it a fear or dread of something terrible yet *soon* to come; though at the same moment you will observe contractions of the facial mus-

cles which are usually indicative of pain. You will note also alternating facial paleness and flushings, disappearing and reappearing with great rapidity. Conjunctival injection, with photophobia, exists. There may be hyperesthesia, or anesthesia of the skin. The emesis of the second stage no longer obtains, but as a rule constipation is still present. The act of respiration is irregular, being at times rapid and then soon after slow, with the peculiar sighing respiration at intervals. This irregularity of the respiratory act, as well as the heart-beat, is dependent upon involvement of the pneumogastric centers. The duration of this stage may be for from two to three days to as many weeks.

The fourth stage, or *stage of recurrence*, is characterized by the reappearance of the fever and an augmentation of the symptoms pointing to brain trouble. Prior to its onset we may have that remarkably deceptive and misleading condition of a nearly perfect *intermission of all the cerebral symptoms* which is so liable to mislead the inexperienced or careless observer, the impression apt to be made upon the minds of those interested in the case being that now recovery will surely take place; or, if one doctor has just supplanted another, that of "behold, what wonders he hath wrought!" Convulsive movements will now become more emphatic, both as to frequency and violence, together with, in some instances, tonic contractions of the extremities, and muscles of the neck and back, causing opisthotonos. These movements, after a greater or less period of time, end in paralysis of first one or more of the extremities, both of a side or on opposite sides, voluntary motion being lost, but reflex movements can be produced; delirium increases, as also somnolence, and finally coma becomes general, and sensibility of the spine is completely abrogated. Just anterior to dissolution the pulse-rate becomes more rapid—in some cases over 200 per minute; a cold, clammy perspiration freely bathes the little patient, and he dies, either with a slow asphyxia, or in convulsions.

Case. There was recently under my professional care a bright little girl, six years of age, fair complexion, blue-eyed, light hair, with remarkably long eyelashes, having a prior history of good general health, though never robust; during the latter part of March (I first saw her July 13, 1880), she had passed through an attack of typhoid pneumonia, in which she was attended by one of our most capable and erudite physicians. Her general health now had been apparently fully restored.

July 13th, was summoned to her, and found she was a little peevish and irritable, with a temperature of 101° F.; had had two or three diarrheal discharges, supposed to have been provoked by something she had eaten through the day; slight nausea, and had vomited once only, which act seemed to relieve her. Temperature was not sufficiently exalted to indicate any malarial manifestation, which fact made me at once solicitous as to her condition—bespeaking to my mind something latent. I prescribed quietude of body and mind, fluid food in small quantities, and antiperiodic doses of sulphate of quinine upon the assumption that malaria might possibly exist as a factor, as also to get the benefit of its antifebrile quality, which medicine was well retained by the stomach. Next morning there was less fever but no intermission; irritability of stomach and diarrhea had both disappeared, patient resting quietly, but when addressed still exhibiting some irritability of disposition, which with her was uncommon.

The latter description of the case held up to the 18th of July, when the following "chart" was begun. There was no ptosis up to this date, but the mother said during this visit, "She believed, may be it was imagination on her part, there was a slight difference in the sizes of the child's two pupils." I examined closely and found it was true, the left pupil being the larger. There was slight ptosis of left lid:

	Time.	*Temperature.*	*Pulse.*
July 18, 1880,	10 A.M.		134
"	11 "		130
"	11:30 "	100¼°	128
"	12:30 P.M.		120
"	12:45 "	101°	
"	1:20 "		126
"	1:30 "	100½°	
"	2:10 "		120
"	2:45 "	101¼°	110
"	3:20 "		118
"	5:10 "	101⅝°	140
"	10 "	99½°	
"	11:15 "		109
"	11:30 "	99⅝°	
July 19, 1880,	12:35 A.M.		104
"	1 "	99½°	116
"	1:30 "	99½°	124
"	2 "	100⅜°	124
"	2:45 "	100¼°	112
"	4 "	101°	120
"	5 "	101°	110
"	6 "	101°	120
"	7:50 "	101¼°	120
"	11:10 "	101½°	124

Time.	Temperature.	Pulse.
July 19, 1880, 12:20 P.M.	100¼°	110
" 2 "	100¼°	
" 5 "	101°	114
" 7 "	100⅜°	108
" 8 "	101°	115
" 9:15 "	99⅝°	108
" 10:45 "	100½°	
" 11:15 "	100½°	120
July 20, 1880, 1 A.M.	100⅝°	105
" 1:30 "	100⅜°	108
" 2:45 "	100⅛°	120
" 4 "	100½°	
" 5 "	101½°	118
" 6 "	101¼°	110
" 6:40 "	101½°	130
" 8:50 "	101⅛°	120
" 10:30 "	100¼°	120
" 11:30 "	100⅜°	105
" 12:30 P.M.	100°	112
" 1:30 "	100⅛°	105
" 2:30 "	100½°	110
" 6:30 "	101¼°	120
" 7:30 "	101½°	120
" 9:30 "	101°	115
" 10:30 "	101¼°	
" 11:30 "	100½°	
July 21, 1880, 1 A.M.	100⅜°	110
" 1:30 "	100⅝°	130
" 2 "	100⅜°	120
" 2.30 "	100⅝°	112
" 4 "	101⅜°	
" 5 "	101⅛°	
" 6 "	101¼°	
" 7 "	101⅜°	115
" 7:30 "	101⅜°	116
" 8:30 "	100⅝°	
" 11:30 "	100½°	116
" 12:45 P.M.	100⅞°	120
" 1:10 "	99¼°	104
" 2:10 "	100¼°	104
" 3:30 "	100⅜°	
" 5:45 "	101⅛°	140
" 6:30 "	101⅜°	
" 7:15 "	99⅞°	140
" 7:30 "	99° — Was just sponged off.	105
" 8:45 "	99⅘°	104
" 9:30 "	99¾°	116
" 10:30 "	99½°	
" 11:30 "	100½°	
July 22, 1880, 12:30 A.M.	100¾°	
" 1:30 "	100⅜°	105
" 2:30 "	100°	132
" 3 "		110
" 4 "	100°	
" 5 "	99¾°	
" 6 "	99½°	
" 7 "	100⅖°	
" 8 "	100¾°	100
" 9:30 "	101¾°	
" 11:30 "	100°	
" 1 P.M.	100°	
" 4 "	99½°	
" 7 "	99⅝°	
" 8 "		104
" 8:30 "		105
" 10 "	101¼°	
" 11:30 "	100½°	
July 23, 1880, 12:30 A.M.	100⅛°	
" 2 "	101°	
" 2:40 "	100°	120
July 23, 1880, 3:30 A.M.	99¾°	
" 4:30 "	99¼°	
" 5:30 "	99½°	
" 6:30 "	100°	
" 7 "	99⅝°	120
" 7:45 "	99½°	110
" 11:30 "	99⅞°	104
" 12:45 P.M.	99°	120
" 1:30 "	100¼°	137
" 2:40 "	99½°	104
" 4 "	99°	104
" 4:40 "	99¼°	120
" 5 "	99½°	
" 6:30 "	101⅛°	
" 8:20 "	100⅖°	116
" 10 "	100¼°	115
" 10:30 "		126
" 11 "	99¾°	
" 11:45 "		117
July 24, 1880, 1 A.M.	99½°	104
" 2 "	99½°	
" 3 to 5 "	Pulse very weak, child greatly exhausted.	
" 6 "		110
" 7:15 "	100⅗°	80
" 8:15 "	101°	
" 12:30 P.M.	101°	128
" 3:05 "	101¼°	112
" 6:15 "	101¾°	128
" 7:40 "		124
" 8 "	99½°	122
" 10.15 "		114
" 11:45 "	100°	116
July 25, 1880, 1 P.M.	102¼°	
" 4 "	103°	
July 26, 1880, 1 A.M.	102½°	
" 4:15 "	103°	
" 5:30 "	102°	
" 6 "	102¼°	
" 7:30 "	102°	120
" 12:40 P.M.	Res. 33, 101°	132
" 1:40 "	100½°	
" 9:30 "	103¼°	
July 27, 1880, 12 A.M.	103¾°	
" 8:30 "	102°	
" 10:35 "		160
" 11:20 "	Res. 40, 101¾°	160
" 2:40 P.M.		180
" 3 "	103¾°	162
" 8:20 "	103½°	175
" 9:30 "	103¾° — Resp. 40 and 42, child quiet, no twitchings.	164
July 28, 1880, 5:20 A.M.		180
" 5:45 "	Five minutes after, 102½°	160
" 8 "	103¼° — Res. 40–44, child quiet.	160–168
" 10:45 "	104°	
" 11:30 "		180
" 12:20 P.M.	103½°	176
" 2:30 "	104¼°	160
" 3:45 "	105⅛°	
" 8:05 "		194
" 8:10 "		180
" 8:15 "	Res. 52, 104¾°	192
July 29, 1880, 12:05 A.M.		190
" 2:15 "		180

Pulse reached 204 and 206 per minute; respiration reached 64 per minute; temperature, 106¾° to 107°. Child died at 10 P.M. from slow asphyxia.

Let us now consider the treatment of these cases.

All authorities devote many pages to the *causes*, symptomatology, and morbid anatomy of this affection, but a very limited space (in most instances) to the subject of its treatment. All agree that *prophylactic* treatment may be brought to bear upon these cases with the hope of success crowning our efforts in that direction. Bearing directly upon the prevention of these cases are the following expressions of Niemeyer: "Among the exciting causes, premature or excessive mental exertion is blamed most frequently for exciting hydrocephalus in children; this is probably unjust. Children *not predisposed* to it may be mentally stimulated to any extent without inducing hydrocephalus, and the early development of children falling a prey to this disease is *due to their predisposition*, not to their bringing up. This is not the cause of their hydrocephalus. The same is true of the assertion that a blow or fall on the head induces tuberculosis of the meninges and acute hydrocephalus. It is almost always easy to make out that the child has some time or other fallen on its head; but it does not thence follow that this fall is to be regarded as the cause of his disease."

From the moment of birth this prophylactic treatment should begin. If the mother is tuberculous, the child should be raised by a healthy wet-nurse, and when weaned cow's milk should be its dependence for physical support, supplemented by good plain wheat or other bread and potatoes. An abundance of good fresh air is highly essential for all children, but especially for those with a tuberculous tendency; they require more out of-door recreation, and can not, with impunity, remain confined to the house or school-room, as healthy children can. Where the parents are pecuniarily able, these children should spend the winter months in some southern latitude, to enable them to remain most of the time in the open air, so that no serious croupal or bronchial attacks result.

Should indications of delicacy of constitution show themselves, the subject should at once be put upon the employment of some of the most easily assimilated iron preparations (no febrile feature being present), for this is one of the best known prophylactic medicaments against all tuberculous and scrofulous expressions. Cod-liver oil, malt preparations, compound syrup of the hypophosphites, or syrup of the iodide of iron should, according to indications, be now and then administered with the object of keeping the general health well established, and thus combat any tendency to *local* demonstration of this serious affection. All causes which produce any hyperemia of the lungs are to be avoided where there exists an inclination to deposit of of tuberculous material in these organs; the same rule must hold with equal truth and force, that any cause which produces hyperemia of the brain should be shunned, and one of the chief among these is over-mental exertion, as we find practiced in many of our schools. Very frequently this is not only connived at, but insisted upon by the parents of these unfortunately precocious children. Less marked, but nearly as injurious in its result, is the violent arousing of any of the emotions of the mind. Subjecting the patient to any sudden transitions in temperature, by over-exercise and then exposure to direct currents of air, are to be avoided as carefully in these cases as in those where a disposition to tubercular disease of the lungs exists; in a word, every provocation toward hyper-congestion of the brain is to be eschewed. All of the functions should be regularly performed, thereby preventing any hyperemia of the brain substance, the opposite state of anemia being prevented by the methodical supply of nutritious, easily digested food.

Light flannel should be worn next to the skin for warmth; the slight irritation it causes keeps the skin active, thereby lessening the disposition to over blood-supply to these overactive, precocious brains.

Regularity in the habits of life should be insisted upon, eating, physical and mental exercise, and sleeping. During the latter act there is physiologically less arterial blood contained in the brain; therefore allow these patients to sleep sufficiently long, and not, as is often done, keep them up late and arouse them early to enable them to accomplish their—too often for them—herculean mental tasks, besides begrudging them a few hours of the day for out-of-door sports and pastimes. In a word, keep the physical and mental body in such a state of healthy action that it shall at all times possess a degree of life force competent to prevent the introduction of the first spark of disease which may light up the local inflammation in these tuberculous brains.

As to the treatment to be instituted in a case of this disease when you are confident of having made a correct diagnosis, Flint

remarks: "If the diagnosis be positive the encouragement for successful treatment is exceedingly small. It is difficult, of course, to decide upon measures which will be likely to be useful in a disease tending intrinsically like this to a fatal issue, and where in cases of apparent recovery we are obliged to distrust the correctness of the diagnosis." In this statement he is right; but we are to be encouraged by this fact, that we may be in error as to our diagnosis, and may be treating a case of simple meningitis; therefore we are warranted in treating all of these cases as though we believed they were the latter affection, except that no general blood-letting or measures which cause suffering, as blisters, etc. (though possibly frequently repeated cathartics), are to be employed.

As to the treatment, Hammond says: "The principal advice I have to give is, to refrain from blisters, antimonial ointment, leeches, and drastic purgatives, which only tend to shorten life and make the patient's life more intolerable than it is made by the disease. Potash iodide does less harm, but I have never known it to accomplish any good."

Hartshorne's advice is this: "I would not bleed from the arm, but draw blood moderately by cups or leeches; purge freely, but not exhaustively; blister back of neck or head; apply cold with care, and allow liquid nourishment from an early stage."

Fothergill thus states his views: "Before the days of chloral and bromide of potassium, opium in small doses together with full doses of such a vascular depressant as tartar emetic or, may be, venesection, was the plan in vogue, local depletory measures also being practiced. As long as the circulation remains active vascular depressants must form an essential part of the programme. Now chloral would form at least one ingredient of all prescriptions for cerebral hyperemia. In all cases where the cerebral hyperemia *commences in alterations* in the cerebral cells the treatment will comprise two factors, but the agents calculated to allay cerebral excitement take the first position, vascular depressants and purgation being auxiliary and subordinate, but nevertheless not to be neglected."

Niemeyer thus expresses his views: "At the beginning of the disease, especially if headache be severe, apply leeches behind the ears; if they should prove beneficial repeat during subsequent relapses of the inflammation. At the onset use also laxatives and ice compresses." He then mentions his treatment by full doses of iodide of potassium. "Hasse," he concludes, "recommends very small doses (one twenty-fourth of a grain) of morphia, even in the early stages."

The views of Meigs and Pepper are succinctly as follows: The only measures, in an experience of twenty-seven years, found to delay or cure in part have been the following: Quiet of body and mind, a nutritious diet, a mustard foot-bath two or three times daily; the bowels should be moved once daily, or every second day by means of enema or a laxative together with a teaspoonful of cod-liver oil in emulsion three times daily. Calomel we have abandoned, it having utterly failed in our hands.

The treatment is to be divided into that applicable to each of the stages of the disease, those remedial agents being used in the first stage which lessen congestion of the head, as also those which decrease the quantity of exudates. Just here you will recall the fact that all authorities advise *cold* applications to the head. Why *cold** applications we would ask? for here an exception is made to the invariable rule in the treatment of all inflammatory affections of the balance of the organs. Do we use *cold* applications to the chest-walls in a pneumonia? do we use *cold* over the region of the bladder in a cystitis? As a rule—to which a very few exceptions should exist—do we use *cold* applications over an acutely inflamed joint? Then why should we not employ water as warm as can be borne, gradually increasing the height of its temperature as the patient becomes inured to it, in all cases of inflammatory affections of the brain? Cold applied, first lessens the caliber of the superficial vessels of the scalp, and, if continued, those also of the superficies of the brain, causing a retrocession of the blood to the more deeply situated parts, thereby, temporarily at least, increasing the very condition we are aiming to obviate. Upon removal of cold from the exterior reaction *slowly* occurs, the superficial vessels gradually enlarging beyond their normal size, and thus remaining *only for a short time;* on the other hand, *immediately* upon the application of *moist heat* to a part the superficial vessels dilate, and if they be continued those more profoundly situated are similarly affected, thereby at once relieving both the arterial and venous congestion. This dilated condition

*This idea of the unphysiological use of *cold* applications to head in cerebral diseases was suggested to me at a consultation over this case by my revered friend, Dr. Hewitt.

continues and increases as far as is practicable so long as the hot applications are being made. Who has not experienced this during the enjoyment of a congestive headache?

A second means we possess for reducing this congestion, or for lessening nervous irritability, is the bromide of potassium through its physiological action of causing a contraction of the vessels of the brain and of other organs. The abstraction of blood by means of leeches is of doubtful utility, at least in the majority of cases. Purgation certainly relieves head congestion, but is to be employed with great care; it is also believed to reduce the amount of serous exudation.

With the above-mentioned measures should be combined perfect quietude of body and mind, the exclusion of light, elevation of the patient's head, and frequent foot-baths (warm), and continuous warmth to the feet while the child is in bed. The food should, during this stage, be of the blandest character, nutritious, fluid, and easy of assimilation.

The object of treatment of the *second* stage should be to establish and expedite the absorption of the inflammatory products. Here the iodide of potassium—first recommended by Rœser—is believed to play an important part. It should be given in full doses, and this amount increased, continuing its use for a long time. In Niemeyer's cases, where recovery took place, "there was a very extensive iodine eruption and an iodine catarrh of the nose;" while in those cases which were lost these signs of iodism were absent. We can not indorse the employment of blisters or blistering solutions to the nucha, or shaved scalp, having seen no good result from their use, but some harm, as we have thought—an increase of the convulsive or nervous symptoms.

Having fears now of death from asthenia, we do well to support the flagging energies by the administration of nutritious fluids, and even stimulants diluted.

We are convinced of having seen the convulsions materially mitigated in severity and duration by the regular administration of bromide of potas., *pro re nata*. Some advise for the convulsions, when violent, the use of the warm bath; but when we recall the fact that first removing the child's clothing, then placing it in the bath, then removing it from the bath and reclothing, subjects it to at least three changes of temperature, together with our having yet to witness any of its good effects, but probably evil results, we can not indorse their employment in these cases under these circumstances; but prefer to rely upon antispasmodics—valerian, chloral hydrate, or bromide of potas.—giving the preference, from experience, to the latter. In case these fail, I give chloroform by inhalation.

In conclusion, let us state, our art promises very little in these developed cases; our entire strength—if strength there be—lies in the direction of prophylaxis.

LOUISVILLE, KY.

Miscellany.

CHOLERA PROPHYLAXIS.—In connection with the Sanitary Survey of the State and the House-to-House Inspection now being prosecuted under direction of the Illinois State Board of Health with reference to the probable appearance of Asiatic cholera in this country, the Board has just issued circular-letter No. 6, addressed to county clerks, and requesting that the work of getting the public institutions into good sanitary condition be completed with as little delay as possible. Much work of this character was done during the past summer and fall, in response to the circular letter of the Board issued in July last. But, in addition to what remained to be done when cold weather suspended operations there must have accrued, in many cases, accumulations of filth and refuse which should now be promptly removed; defects in plumbing, drainage, and sewerage disclosed during the winter should be repaired; and the effects of the occupancy of dormitories, workshops, wards, cells, and other apartments should be remedied by a thorough spring cleansing.

The officers in charge of almshouses, jails, and all other public buildings under control of the County Board are notified to commence this work at once. Very much that requires to be done—scrubbing, whitewashing, the removal of garbage and refuse, the emptying and disinfection of vaults and cesspools, the opening up and cleaning out of drains, sewers, and ditches, can be performed by the employes and inmates of the institutions.

Especial attention should be given to the location and condition of privies and water-closets at these places, as also at court-houses, and elsewhere. Vaults should be

emptied before warm weather makes such work dangerous, and then be thoroughly disinfected with sulphate of iron (copperas). Where these vaults are within fifty feet of any source of water-supply—well, spring, pond, lake or running stream—their further use should be abandoned, and after being emptied they should be disinfected and filled up with clean, dry earth—one of the best disinfectants. The new vault should not be less than fifty feet from the nearest water-supply; should be water-tight; ventilated by a four-inch shaft, opening above the roof; the contents should be kept inoffensive by the use of some cheap disinfectant; and the building and its surroundings should be kept in the cleanest attainable condition. Where practicable the substitution of the earth-closet system for the subterranean vault storage is recommended. In either case the frequent removal of the contents and their safe disposal by use as fertilizers are necessary sanitary measures.

The source of the water-supply, and its storage and distribution should be carefully inquired into, and all possible causes of pollution should be removed. A pure water-supply is of the first importance to health under all circumstances; but among numbers of persons living under the conditions which obtain in county institutions, its importance is increased. Epidemics of diarrhea and dysentery may be caused by impure water; while Asiatic cholera and typhoid fever are spread more commonly through the water-supply than in any other way.

These remarks and suggestions will indicate the character of the work which the Board considers it desirable should be accomplished before warm weather sets in, not alone through fear of cholera, but in the interest of public health, and consequently of true economy.

A similar circular was recently issued to railroad managers, setting forth that the spread of Asiatic cholera is due oftener to the pollution of the water-supply than to any other one cause. There is no commoner mode of such pollution than through foul, badly-constructed, and improperly-located privies and water closets. The disease in this country being always due to importation, and its spread being most commonly by persons traveling from place to place, it follows that railway privies and water-closets are especially exposed to the danger of cholera-infection. In view of these facts it is requested that all such places in connection with stations, freight-houses, shops and round-houses be at once inspected and put in good sanitary condition.

Responses have been received from nearly all the roads, and one of the most important lines has already completed the work indicated along the entire extent of its road.

AMERICAN SURGICAL ASSOCIATION.—The meeting of the Association will be held in the Army Medical Museum, Washington, April 21, 22, 23, and 24, 1885. The following papers will be presented:

The Field and Limitation of the Operative Surgery of the Human Brain, by John B. Roberts, M. D., Philadelphia. Synopsis: (1) In cranial fracture. (2) In intra-cranial hemorrhage. (3) In intra-cranial suppuration. (4) In insanity. (5) In epilepsy. (6) In cerebral tumor. The discussion of the paper will be opened by Fellows Hunter McGuire, Moses Gunn, J. C. Hutchison, and D. W. Yandell.

An Experimental and Clinical Study of Air Embolism, by N. Senn, M. D., Milwaukee, Wis. Fellows J. Collins Warren, C. B. Nancrede, W. H. Pancoast, and Christian Fenger will open the discussion of the paper.

Nephrectomy: Its Indications and Contra-indications, by Samuel W. Gross, M D., Philadelphia. Fellows L. McLane Tiffany, Christopher Johnson, A. Vanderveer, and D. W. Yandell will lead in the discussion of the paper.

Nephrolithotomy, by L. McLane Tiffany, M. D., Baltimore. Fellows S. W. Gross, J. W. S. Gouley, T. A. McGraw, and P. S. Conner will lead in the discussion.

The Healing of Arteries in Man and Animals after Ligature, by J. Collins Warren, M. D. Fellows N. Senn, F. S. Dennis, Moses Gunn, and Stephen Smith will lead the discussion.

The Immediate Cure of Fistula in Ano, by Stephen Smith, M. D., New York. The discussion will be opened by Fellows John H. Brinton, David Prince, N. P. Dandridge, and Alan P. Smith.

Etiology of Tetanus, by P. S. Conner, M. D., Cincinnati. The discussion will be opened by Fellows T. G. Morton, W. S. Tremaine, J. H. Packard, and R. B. Bontecou.

A Case of Cholecystotomy, by T. C. Parkes, M. D., Chicago. Report of case, and general consideration of subject. Dis-

cussion by Fellows Donald Maclean, J. Ewing Mears, and E. H. Gregory.

Some Points in the Surgery of the Hypertrophied Prostate, by J. W. S. Gouley, M. D., New York. To lead in the discussion, Fellows S. W. Gross, Hunter McGuire, T. F. Prewitt, and J. W. White.

Prosphorus Necrosis: Its Causes, Treatment, and Prevention, with Reports of Cases, by J. Ewing Mears, M. D., Philadelphia. Discussion by Fellows L. A. Sayre, R. A. Kinloch, and James McCann.

For the information of fellows who desire to attend the American Medical Association, at New Orleans, the following facts are given: the last day of the session of the Surgical Association is April 24th; the first day of the Medical Association is April 28th.

Through routes to New Orleans from Washington, by Cincinnati, Louisville, and Nashville: round trip, $37.50. By Lynchburg going, Cincinnati returning, $48 00; limit of tickets, fifteen days; five days' limit of return allowed; ticket must be stamped by agent at New Orleans.

In relation to chartering a hotel or sleeping car for the round trip, the following memorandum has been received from the Pullman Company. Rate for a hotel car is $65.00 per day for the entire time the car is absent, and for a sleeping car $50.00 per day, allowing a drawback, if the cars are lying over unoccupied, of $30.00 for hotel, and $25.00 for sleeping car. We would be willing to furnish the commissary at the original cost with ten per cent added to the original bills for handling it. We would supply conductor, cook, and sufficient waiters to handle the business. There would be no further expense so far as this company (Pullman) is concerned, if the party go and return by the same route; but if they go via Danville, and return via Wilmington, or *vice versa*, they would have to pay the freight charges on the trucks between these points in both directions. A sleeping car, or hotel car, will hold twenty-eight persons. If the members of the Association desire to make up a special party, and to have a car to themselves, they should notify Surg. John S. Billings, Committee of Arrangements, Washington, as soon as possible, as such an arrangement must be made not later than April 15th.

Dr. Billings will secure hotel accommodations for members who write to him for that purpose.

The approaching meeting promises to be exceptionally interesting.

THE St. Louis Courier of Medicine states that, at a recent meeting of the Medico-Chirurgical Society of that city, Dr. Todd gave the history of a case of congenital papillomata of the larynx. The child was ten and a half years of age. With the laryngoscope a tumor was seen filling up the larynx. A tracheotomy was performed, and later on the larynx was opened and found to contain a number of papillomatous growths.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS will hold its Annual Meeting in New Orleans on the evening before the day of meeting of the American Medical Association. The officers are as follows: Dr. H. O. Marcy, Boston, President; Dr. J. V. Shoemaker, Philadelphia, Vice-President; Dr. H. O. Walker, Detroit, Secretary.

AN American and an Englishman were once having a heated discussion as to the relative sizes of the Thames and the Mississippi. The American finally clinched the argument thus: "Look here, mister, why there ain't enough water in *the whole* of the Thames to make a gargle for *the mouth* of the Mississippi!"

IT is stated that alum dissolved in glycerine by aid of gentle heat, one part alum to five parts glycerine, makes a powerful local astringent. It is very useful in chronic pharyngitis, and when diluted with water forms a serviceable gargle.

THE Mississippi Valley Medical Monthly, quoting Dr. Taylor, says that a small stream of water poured from a considerable height on the scrotum will cure any case of simple congenital hydrocele.

DR. FRANK WOODBURY, the editor of the Philadelphia Medical Times, has recently been called to the Professorship of Materia Medica and Therapeutics in the Medico-Chirurgical College, of Philadelphia.

THE Fifty Second Annual Meeting of the Medical Society of the State of Tennessee will be held at Nashville, commencing on Tuesday, April 14th, and continuing three days.

FOR bronchial catarrh, DaCosta recommends the following: Ammonium chloride, ten grains; chloroform, five drops; mist. glycyrrhizæ comp., one dram.

The Louisville Medical News.

Vol. XIX. SATURDAY, APRIL 11, 1885. No. 15

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A journal of Medicine, Surgery, and the Allied Sciences, published every Saturday. Price $3.00 a year postage paid.

This journal is conducted in the interests of no school, society, or clique, but is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITOR OF THE LOUISVILLE MEDICAL NEWS, LOUISVILLE, KY.

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EVISCERATION INSTEAD OF ENUCLEATION.

Death as a consequence of enucleation of the eyeball is unquestionably rare, but the possibility of a fatal result, taken with the adverse teachings of the late Prof. von Graefe, of Berlin, has led many surgeons to hold this operative procedure as contra-indicated during the stage of panophthalmitis. Von Graefe showed that consecutive meningitis did sometimes follow in the wake of the operation, and held that the danger of this complication was sufficient to render it unjustifiable.

But while the dictum of this great master can not be lightly set aside, it is nevertheless true that enucleation has been performed many thousands of times, and that very few deaths indeed are chargeable to its account.

In rare instances only is the eye removed with a view to prolonging life. Cosmetic effect and the prevention of sympathetic inflammation are the usual incentives to surgical interference, and since the first though often desirable can justify no risk of life, and the second is frequently the only alternative of total blindness, the surgeon will contemplate with satisfaction any improvement or device which may divest this operative procedure of its only serious complication.

Prof. Alfred Graefe, of Halle, has recently advocated in lieu of enucleation the removal of the cornea and ciliary region with evisceration of the contents of the scleral cup. He says that in two cases of fatal meningitis following enucleation he could find no disease of the optic nerve; but the pia mater was infiltrated around the optic foramen. He therefore assumed that the inflammatory process had been propagated by way of the intravaginal space. In the American Journal of Ophthalmology, for January, a description of the operation as performed by Prof. Graefe is given by Dr. Fiske, one of the assistants at the ophthalmological clinic. The advantages claimed for the procedure are as follows: (1) There is no wounding of any tissue serving to connect the orbit with the cranium, and especially of the lymph sheath of the optic nerve, a ready avenue, it is claimed, for the extension of inflammation from the surgeon's cut to the cerebral meninges. (2) The stump obtained is far superior to that of the enucleated eye, since it will afford the artifical eye which is to be placed upon it a better socket and a greater extent of motion.

Another count in favor of evisceration is that it takes away bodily the ciliary region, which is claimed to be the starting point of sympathetic inflammation.

A similar operation has been performed by Dr. Mules, and described by him before the Ophthalmological Society of the United Kingdom.

Dr. Mules removes the anterior portion of the eye, and thoroughly empties the contents of the globe, leaving only the sclera. Into the cup thus formed he fits a small glass globe, and with a fine suture brings the edges of the wound together, by which means the globe is inclosed in the sclera. The operation must be done under strict antiseptic precautions, since if much inflammatory

reaction should follow the globe would have to be removed.

The operation as described by Prof. Graefe is not new. It has been often performed in cases of panophthalmitis for the purpose of relieving tension and hastening the stage of repair, but its introduction as a substitute for enucleation in forestalling sympathetic inflammation, etc., is of recent date.

AMERICAN MEDICAL ASSOCIATION—RAILROAD FACILITIES.

Physicians of Louisville and vicinity who expect to attend the American Medical Association, which meets in New Orleans, April 28th, 29th, 30th, and May 1st, can secure tickets over the Louisville & Nashville Railroad at the following rates: Excursion tickets (round trip), good for forty days, $21; the same good for fifteen days, net rate, $16.15; from other points along the line at correspondingly low rates.

Stop-over privileges will be granted at such points as may be desired by the holder *en route* to New Orleans. The stops shall not exceed six, and must be made within a period of ten days from the date of leaving the initial point on this line.

Pullman Buffet Sleepers go with each train, and run through without change. Rates between Louisville and New Orleans, double berth, $5; section, $10.

Two through trains leave Louisville daily (depot corner of Tenth and Maple), one at 12:15 o'clock P. M., and the other at 1 o'clock A. M.

If a sufficient number of delegates and visitors from the city, vicinity, and points in Kentucky along the line, are going to make the trip, it would, probably, be a matter of economy, comfort, and good cheer for them to club and charter a sleeping-car, which would serve them not only for passage along the line, but also as a sleeping place during their stay in New Orleans. A sleeper accommodating from thirty to forty occupants may be secured at $50 per day.

This, for a round trip of fifteen days' duration, will cost each passenger just $25, or $1.66⅔ a day; rations extra.

If in the contemplation of this scheme, any doctor, whose thoughts tend southward, should find it to hold a balance upon the economical side, as compared with probable hotel rates, we shall be glad to hear from him during the next ten days.

Should as many as thirty physicians respond, we shall be pleased, in a future issue, to refer each inquirer to some railroad or medical society official who may be trusted to carry the scheme to a satisfactory issue. More than this we can not undertake, though the NEWS will give the project all due encouragement and support.

Bibliography.

The Universal Benefactor. A journal published in the interest of the American Society for the Prevention of Adulteration of Food. H. B. Amerling, Editor. Vol. 1, No. 1. Philadelphia, Pa., March, 1885.

As will be seen by the title this journal is a protest against a great and ever growing evil. It is bold, fair, and earnest in its utterances, and is of itself deserving of a liberal support. Let every true philanthropist help to hold it up, for if it lives it will be in spite of some of the most wealthy, influential, and corrupt business interests in the land.

New York Medical Abstract. A monthly Journal of Foreign Literature. Vol. v, No. 2, February, 1885.

Does Tobacco Produce Amblyopia? By W. Franklin Coleman, M. D., M. R. C. S., England; Baltimore, Md., Professor of Diseases of the Eye and Ear in Baltimore Polyclinic and Post-Graduate Medical School, etc. Reprint from Maryland Medical Journal, March 14th, 1885.

Remarks on Typhoid Fever in the Young. By A. Jacobi, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, New York. Reprinted from the "Archives of Pediatrics," March, 1885. Philadelphia: John E. Potter & Co. 1885.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Mr. James Cantlie, F. R. C. S., delivered an address at the Parkes Museum of Hygeine on Degeneration among Londoners. Dr. Crawford, Director-General of the Army Medical Staff, presided. The lecturer first defined London, hygienically considered, to be a region where there was no ozone; sun-burning was unknown; and as a place where beneficial exercise—that is, exercise in the fresh air—was impossible. A Londoner was one whose father and mother were born, brought up, and lived in the area he had defined, and who, himself or herself, was brought up and lived in London, and whose only notion of a relaxation was a run to the country or the sea-side on a bank holiday. It was well-nigh impossible to find a third, and absolutely impossible to find a fourth generation of pure Londoners; the progeny ceased, partly from moral and partly from physical decline and inability of continuance. The pure Londonder of the third generation which he had been able, after much search and inquiry, to get hold of, was a picture of physical decline, involving shortness of stature, narrow chest, deformity of jaws, miserable appearance (squint prevailing), scrofulous diseases, and small head. Pure Londoners were seldom to be found in workhouses, because they died young; and from the fact of their being young, they were able to "light porter," sell papers, and by some such shiftless means earn a livelihood.

Entering at length into the effect of too little exercise — beneficial exercise — upon children, youths, adults, families, nations, and races, the lecturer foretold evil to the townsfolk of to-day if measures were not taken to provide means of exercise in fresh air. Artificial exercise of a proper kind would produce a good type of individual. The Spitalfields weavers, an indigenous and temperate people, were yet a puny, ill-developed, stumpy race. But look at the royal families of Europe. They did no work; yet, as a rule, they could hold their own with the stoutest peasant. The explanation was that they took that artificial exercise which would compensate for any amount of indoor work, or high feeding. People nowadays seemed to have lost all their individuality. It was a serious question whether the welfare of this country should, in the next generation, be left to a race out of whom all enthusiasm and earnestness had passed.

A vigorous attempt has been made during the month at Oxford to defeat the objects for which the new Physiological Laboratory has been erected. It was necessary that a sum of £500 annually for three years should be granted to defray the working expenses of the laboratory, and many members of the convocation appeared for the purpose of opposing the grant. The professor does not propose to illustrate his lectures by experiments on living animals. This, indeed, he has no legal power to do; but, if he possessed the power, he would not wish to make use of it. All that he claims is the right to practice vivisection in his private researches; and it was to deprive him of the opportunity of exercising this right at Oxford that the anti-vivisectionists mustered their forces. Fortunately there was a large majority on the other side, so that for some time, at least, the University of Oxford will be able to take its proper place beside the great European universities in the study of physiology. There can be little doubt that the question will be raised again when the time comes for the renewal of the grant, but it may be hoped that the anti-vivisection movement will be less powerful then than it is now. Every one respects the motives of the anti-vivisectionists, but they have too easily persuaded themselves that they alone understand the duty of man toward the lower animals. Physiologists are as unwilling as Canon Liddon to inflict pain unnecessarily. Their ultimate object is the benefit of mankind, and it is mere dogmatism to assert off-hand that the experiments which they believe to be essential must be condemned by every person of enlightened moral judgment.

An inspection of the Volunteer Ambulance Corps, which is clothed and drilled in the same way as the Hospital Ambulance Corps, and which has volunteered for active service, took place a few days ago at the Wellington Barracks before Sir Guyer Hunter, the Surgeon-General. The officer in command was Surgeon Cantlie. About three hundred and twenty men were on parade, in six companies. There are about five hundred men in the corps. The larger number of them are medical students. They went through the stretcher drill in a most satisfactory manner, and in a few weeks will be quite perfect.

The leading physician at Aix-les-Bains and the superintendent of the bath establishment there have been over in England during the last fortnight, and have been to Windsor to confer with Sir William Jenner and Dr. Reid as to the course of treatment which the Queen and Princess will adopt upon their approaching visit to that town.

At the Pathological Society Dr. Samuel West showed a specimen of aneurism of the splenic artery which occurred in a man aged fifty six, who died from hematemesis Fourteen years previously he had suffered from a severe attack. About Christmas, 1884, and subsequently, he had been drinking heavily, and suffered from diarrhea. On January 21st he passed a large quantity of blood by the bowel, and on the following day, when in the hospital, a tarry motion. The only diseased condition, on physical examination, was an enlargement of the liver. On January 28th he suddenly vomited a pint of bright blood, and died in a short time. The stomach contained two pints of bright blood at the necropsy. There was an ulcer on the lesser curvature; its base and edges were thickened. A small aneurism projected through the base of this ulcer, and from this the hemorrhage had proceeded. The mucous membrane was otherwise healthy, except that at two places there appeared to be scars of two superficial ulcers. The liver and kidneys were cirrhotic. Aneurism in the floor of a gastric ulcer appeared to be a rare condition, as only two other cases had been recorded in the transactions of the Society. A point of some importance was the fact that great pain preceded the hemorrhage. A gentleman present at the meeting gave interesting details of a similar case he had examined last autumn, which closely corresponded with the case described by Dr. West. A large ulcer, three inches in diameter, was found in the stomach. The pancreas formed part of the floor of this ulcer, and in the middle was an aneurism of the splenic artery about the size of a pea. This had been ruptured, and had given rise to the fatal hemorrhage.

At the annual meeting of the Homes for Inebriates Association the Earl of Shaftesbury was elected president, and Dr. Norman Kerr honorable secretary. In the Dalrymple Home there had been 49 admissions, and of those discharged 50 per cent were doing well, and 25 per cent more improved. The majority had been admitted under the provisions of the Habitual Drunkards Act, nine having entered for twelve months each.

The special committee appointed to ascertain what steps could be taken for the prevention of blindness from ophthalmia neonatorum, having considered a letter of the Registrar-General to the Local Government Board, submitted to the Secretary the following report: "That as, in the opinion of the Registrar-General, the reading over of a printed form by the Registrar of Births to the parents would entail considerable expense, this may be dispensed with, and that in place of this reading the following notice be printed on all official documents issued to parents in relation to the birth-registration and vaccination of children, namely: If the eyelids become red and swollen or run with matter within a few days after birth, the child is to be taken, without a day's delay, to a medical man." The disease is very dangerous, and if not at once treated may destroy the sight of both eyes.

Dr. Burney Yeo will read a paper at the Medical Society on Some Points on the Etiolgy of Phthisis.

LONDON, March, 1885.

Pharmaceutical.

Conducted by Simon Flexner, Ph. G.

ANTIPYRIN.—This new drug is described as follows: It is in colorless, columnar crystals, or oftener in a voluminous crystalline powder, of a white or sometimes of a slight reddish color, due to the presence of traces of iron. It is odorless, has a slight bitter taste, and melts at 110° to 130° C. It is very soluble in water, more so in boiling water, and dissolves easily in alcohol or chloroform. With persalts of iron its aqueous solution is colored red.

EXTRACT OF PISCIDIA.—Further trial of this preparation as a hypnotic has confirmed the report previously made in its favor. It would appear that in doses of six grains its action is quite prompt, and is unattended by any unpleasant symptoms.

VALOID OF COCA.—The Lancet speaks as follows of this new preparation of coca: The introduction of a new and reliable preparation of coca will be hailed with satisfaction. The valoid is made from the fresh leaves of the coca plant, each dram

representing the weight of crude drug, including the whole of the alkaloidal and other principles. It has been extensively employed of late, and curiously enough is found to exert a double physiological action. In small doses it acts as a sedative, promoting sleep; while in large quantities, such as three or four drams, it stimulates the nervous system and induces an increased capacity for mental exertion. It has been used with much success in sleeplessness arising from overwork, worry, and anxiety, and also in treatment of impotence, spermatorrhea, and a number of allied diseases. It has no tonic action.

Selections.

THE HYGIENE OF THE MOUTH IN THE NEW-BORN.—Epstein (*Arch. f. Kinderheilk.*) says that certain affections of the mouth peculiar to the earliest period of life can in most cases be avoided with proper care. They are simple erythema, catarrhal stomatitis, circumscribed necrosis of the edges of the palate, similar changes at other points in the oral mucous membrane, and thrush. In all of these diseases there is a catarrh of the mucous membrane, and they may be considered, in general, as stomatitis. The catarrh may be caused by the irritating action of the air, food, the act of swallowing, etc., upon a very sensitive surface. It may be simply a local phenomenon, a symptom of an affection which involves the entire intestinal tract, or an accompaniment of a general disease. With it may be associated a softening and destruction of the epithelium upon the postero-lateral portions of the hard palate, and this may develop into infiltration and necrosis of the mucous membrane throughout its entire thickness, in larger or smaller *aphthous* patches. Less frequently, the other portions of the hard palate, the soft palate, and the central portion of the dorsal surface of the tongue are affected. This disease may be without bad result, or it may lead to serious trouble of the entire organism. Pain and interference with sucking quickly tell upon a new-born infant, and there may result dyspepsia, gastro-enteritis, inflammation of the salivary glands and their ducts, nasal catarrh of a muco-purulent character, purulent inflammation of the middle ear, bronchitis, or lobular pneumonia. Locally, there may be ulceration or gangrene of the mucous membrane at various points, and this may be complicated by the formation of abscesses in the alveolar borders or on the floor of the mouth, deep ulcerations in the frenum of the tongue, purulent glossitis, retro-pharyngeal abscesses, and erysipelas. One of the most frequent causes of stomatitis is the mechanical irritation caused by habitual washing of a child's mouth, after each nursing, to remove the milk which has adhered to the mucous membrane. The epithelium is thus rubbed away from the mucous membrane, and hemorrhage is excited in some cases. The true treatment of children with reference to troubles of this character is the prophylactic—abstaining from interference with the mouth until there is very good cause for attention. The success of this non-interfering plan was amply proved by the author in the Foundling Hospital at Prague, in which those infants which were brought in from Breisky's clinic suffered scarcely at all from affections of the mouth, while among those which were brought in from the city at large, almost all were affected.—*New York Medical Journal.*

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, from March 29, 1885, to April 4, 1885:

Hall, Wm. R., Capt. and Asst. Surgeon granted leave of absence for one month and fifteen days, to take effect when his services can be spared. (S. O. 70, A. G. O. March 27, 1885.) *Gardiner, Jno. de B. W.*, Capt. and Asst. Surgeon ordered for temporary duty at Fort McHenry, Md. (S. O. 64, Dp. East, March 28, 1885.)

OFFICIAL LIST of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service for the week ended March 28, 1885.

Battle, K. P., Assistant Surgeon, to proceed to Memphis, Tenn., for temporary duty, March 27, 1885.

OFFICIAL LIST of Changes in the Stations and Duties of Medical Officers of the United States Marine Hospital Service for the week ended April 4, 1885.

Murray, R. D., Surgeon, granted leave of absence for one week, March 31, 1885. *Bratton, W. D.*, Assistant Surgeon, to proceed to New York, N. Y., for temporary duty, April 2, 1885. *Watkins, R. B.*, Assistant Surgeon, to proceed to New Orleans, La., for temporary duty, April 2, 1885.

The following candidates having passed the examination required by the Regulations were appointed Assistant Surgeons by the Secretary of the Treasury, April 1, 1885, viz., *William D. Bratton*, M.D., of South Carolina, and *Ralph B. Watkins*, M.D., of Connecticut.